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10/501,395

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Florian Lichtenberg

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EXAMINER

SASAN, ARADHANA

ART UNIT

PAPER NUMBER

1615

MAIL DATE

DELIVERY MODE

03/31/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 10/501,395 | Applicant(s) LICHTENBERG ET AL. | |
| | Examiner ARADHANA SASAN | Art Unit 1615 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Application

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.
2. Claims 1-33 are included in the prosecution.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

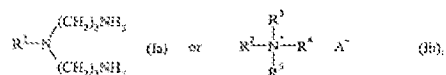
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Zhou et al. (WO 00/03692).

The claimed invention is a process of utilizing a disinfectant composition comprising:

a) an amine and/or quaternary ammonium salt of the general formula:



where R¹ is C₈₋₁₂-alkyl,

R² is benzyl or C₈₋₁₈-alkyl,

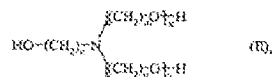
R³ is C₁₋₁₂-alkyl or $[(\text{CH}_2)_n\text{O}]_m\text{R}^6$ where n = 1-20,

R⁴ and R⁵ independently of one another are C₁₋₆-alkyl,

R⁶ is hydrogen or unsubstituted or substituted phenyl,

and A⁻ is a monovalent anion or one equivalent of a polyvalent anion of an inorganic or organic acid; and

b) at least one alkanolamine of the general formula:



where n and, if present, m and o independently of one another have the value 2 or 3, and x and y independently of one another have the value 0 or 1, or a corresponding salt; in the mass ratio I:II of 20:1 to 1:20, as a virucidal agent.

Zhou teaches a method of decontaminating a surface by using a composition comprising a quaternary ammonium compound and water (Abstract). Quaternary ammonium compounds including C₁₂₋₁₆ alkyl dimethylbenzyl ammonium chloride, C₈/C₁₀ alkyl dimethyl ammonium chloride, di-C₈ alkyl dimethyl ammonium chloride and di-C₁₀ alkyl dimethyl ammonium chloride (Page 8, line 42 to Page 9, line 15). Typical amounts of the quaternary ammonium compound range from about 0.01%-5% (Page 9, lines 25-30). Alkanolamines (including triethanolamine) are disclosed as components that comprise 0.01% to 5% of the composition (Page 16, lines 23-36). The method for decontaminating a surface containing microorganisms by contacting the surface with the dispensable composition is also disclosed by Zhou (Page 2, line 45 to Page 3, line 1). The surfaces that may be treated include bathroom surfaces, implements, etc., and include surfaces that harbor microorganisms, including viruses (Page 3, line 40 to Page 3, line 21). The composition can also be used as a cleaner and soil remover (Page 4, lines 29-32). "Additional adjuncts in small amounts such as buffers, fragrances, dyes and the like can be included to provide desirable attributes of such adjuncts" (Page 5, lines 4-5). Table III illustrates the virucidal efficacy of the composition when applied to a test surface. The complete inactivation of poliovirus type I is demonstrated (Page 20, Table III and Page 19, lines 38-40).

Regarding instant claim 1, the limitation of the process of utilizing a disinfectant composition is anticipated by the method of decontaminating a surface by applying the composition that is an effective virucide, as disclosed by Zhou (Page 2, line 45 to Page 3, line 1 and Table III). The limitation of a quaternary ammonium salt of the general formula disclosed in claim 1 is anticipated by the C₁₂₋₁₆ alkyl dimethylbenzyl ammonium

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chloride, C₈/C₁₀ alkyl dimethyl ammonium chloride, di-C₈ alkyl dimethyl ammonium chloride and di-C₁₀ alkyl dimethyl ammonium chloride taught by Zhou (Page 9, lines 25-30). The limitation of “at least one alkanolamine” of the general formula disclosed in claim 1 is anticipated by the triethanolamine disclosed by Zhou (Page 16, lines 23-36). The limitation of the mass ratio of I:II (or the mass ratio of the quaternary ammonium compound: the alkanolamine) of 20:1 to 1:20 is anticipated by the ratio of quaternary (ammonium compound: alkanolamine that ranges from (0.01%-5%): (0.01%-5%), as taught by Zhou (Page 9, lines 25-30 and Page 16, lines 23-36). The limitation of the process of utilizing a disinfectant composition as a virucidal agent is anticipated by the application of the composition to a surface and the complete inactivation of poliovirus type I, as disclosed by Zhou (Page 20, Table III and Page 19, lines 38-40).

Regarding instant claim 2, the limitation of the quaternary ammonium salt is anticipated by the C₈/C₁₀ alkyl dimethyl ammonium chloride, di-C₈ alkyl dimethyl ammonium chloride and di-C₁₀ alkyl dimethyl ammonium chloride, as taught by Zhou (Page 9, lines 25-30).

Regarding instant claims 3 and 12, the limitation of the alkanolamine is anticipated by the triethanolamine taught by Zhou (Page 16, lines 23-36).

Regarding instant claims 4 and 13-15, the limitation of the mass ratio of I:II that is between 1:5 and 5:1 is anticipated by the ratio of quaternary (ammonium compound: alkanolamine that ranges from (0.01%-5%): (0.01%-5%), as taught by Zhou (Page 9, lines 25-30 and Page 16, lines 23-36).

Regarding instant claims 5 and 16-18, the limitation of water as a solvent is anticipated by the water disclosed by Zhou (Abstract).

Regarding instant claims 6 and 19-20, the limitation of the auxiliaries is anticipated by the additional adjuncts in small amounts such as buffers, fragrances, and dyes that can be included, as taught by Zhou (Page 5, lines 4-5).

Regarding instant claims 7-10 and 21-28, the limitation of surface disinfection, instrument disinfection, and laundry disinfection is anticipated by the treatment of bathroom surfaces, implements, and the use of the composition as a cleaner and soil remover, as taught by Zhou (Page 4, lines 29-32).

Regarding instant claims 11 and 29-33, the limitation of the process wherein the virucidal agent of claim 1 is utilized against parvoviruses, picornaviruses or polioviruses is anticipated by the application of the composition to a surface and the complete inactivation of poliovirus type I, as disclosed by Zhou (Page 20, Table III and Page 19, lines 38-40).

Conclusion

5. Due to the new grounds of rejection, this action is made non-final.
6. No claims are allowed.
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aradhana Sasan whose telephone number is (571) 272-9022. The examiner can normally be reached Monday to Thursday from 6:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, can be reached at 571-272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Aradhana Sasan/
Examiner, Art Unit 1615

/MP WOODWARD/
Supervisory Patent Examiner, Art Unit 1615